

Remarks

The Office Action mailed April 17, 2009, has been received and carefully reviewed. The preceding amendments and the following remarks form a full and complete response thereto. Independent claims 1, 9, 39 and 48 have been amended. Support for the amendments can be found at paragraphs [0016] and [0021] of the present specification. No new matter has been added. Accordingly, claims 1-5, 9-12, 39, 48, 59, 62-63 and 76 are pending in the application, and are submitted for reconsideration.

Objections to the Title

The title of the current application has been objected to "because [it was allegedly] not descriptive." See paragraph 4 of the Office Action dated April 17, 2009. Applicants respectfully assert that the amended title, SECURITY ELEMENT WITH A DIFFRACTION STRUCTURE HAVING SUBAREAS REPRESENTING RECOGNIZABLE INFORMATION, is sufficiently descriptive. Applicants respectfully request that the objection be withdrawn.

Claim Rejections under 35 U.S.C. §112

Claims 1-5, 9-12, 39, 48, 59, 62-63 and 76 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants now traverse this rejection and respectfully assert that the rejected claims are definite, and

thus request that the rejection be withdrawn.

Claims 1, 9, 39, and 48 have been rejected because of alleged antecedent basis inadequacies for the phrases "the subarea" and "a recognizable information, wherein the information." See paragraphs 7, 11, 14, and 16 of the Office Action dated April 17, 2009. While the claim language was already definite, the claims at issue have been amended in an effort to advance prosecution. Thus, the skilled person would readily understand the meaning of the claims in view of the specification.

With respect to claims 1, 9, 39, and 48, the Office Action states that "[i]t is [allegedly] unclear which subareas provide the various features of the claim." See paragraphs 8, 12, 15, and 17 of the Office Action dated April 17, 2009. While the claim language was definite, the claims at issue have been amended in an effort to advance prosecution. For example, in claims 1 and 9 it is recited that "the area has subareas being free of any diffraction structures" and "the subareas do not take part in the reconstruction of the diffractive image." In claims 39 and 48 it is recited that part of the methods is "producing subareas of the area which do not take part in the reconstruction of the diffractive image." It is clear that the "subareas" of claims 1, 9, 39, and 48 have no diffractive structure and do not take part in the reconstruction of the diffractive image. Thus, the skilled person would readily understand the meaning of the claims in view of the specification.

Further, these subareas "represent recognizable information" that is "recognizable only under [] specific viewing conditions," as is recited in claim 1 (and similarly in claims 9, 39, and 48). That is, the subareas represent recognizable

information that is recognizable under viewing conditions that are either (1) the same as or similar to the viewing conditions of the diffractive image (as is recited in claims 1 and 39), or (2) different from the viewing conditions of the diffractive image (as is recited in claims 9 and 48). Thus, it is clear from the plain language of the claims that all of the subareas are free of diffractive structure, and that the recognizable information represented in the subareas is recognizable under the recited viewing conditions. For at least the above discussed reasons, it is clear “which subareas provide the various features of the claim.” Thus, the skilled person would readily understand the meaning of the claims in view of the specification. Applicants respectfully request that the current rejection be withdrawn. Additionally, for at least the afore mentioned reasons dependent claims 2-5, 10-12, 59, 62-63, and 76 comply with the requirements of 35 U.S.C. §112.

With respect to claim 3, the Office Action states that “[i]t is unclear how all of the subareas can not have a diffraction structure if information represented by the subareas is recognizable substantially only under specific viewing conditions.” See paragraph 10 of the Office Action dated April 17, 2009. Applicants respectfully assert that claim 3 is definite.

The specification provides a clear explanation as to how the subareas lack any diffraction structure while at the same time being recognizable only under specific viewing conditions. See Appln. [0070] – [0078]. For example, in paragraph [0073] of the specification it is disclosed that both of the reflection layers (22 and 26) are made of the same metal (e.g., aluminum), and therefore when the diffractive image is not

reconstructed the subareas are indistinguishable from the remainder of the area.

However, when the diffractive image is reconstructed, the subareas (which lack any diffractive structure) appear as "dark information against an otherwise bright diffractive image." See Appln. [0073]. Thus, the skilled person would readily understand the meaning of the claim in view of the specification.

For at least the afore discussed reasons, the Applicants submit that the pending claims are in compliance with 35 U.S.C. §112 and respectfully request that the rejection be withdrawn

Claim Rejections under 35 U.S.C. §102

Claims 1-3, 9, 39, 48 and 76 were rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 6,006,415 to Schaefer et al. ("Schaefer"). Applicants traverse the rejection and submit that claims 1-3, 9, 39, 48, and 76 recite subject matter that is not disclosed by Schaefer.

Claim 1 of the present application recites a security element, which has at least one area with a diffraction structure embossed during an embossing process with an embossing die. This diffraction structure, when viewed under specific conditions, reconstructs a diffractive image. The area further has subareas that are free of any diffraction structures. Because the subareas are free of any diffraction structures, they do not take part in the reconstruction of the diffractive image. Further, the subareas

represent recognizable information, such as a number (e.g., Fig. 4). The subareas and the diffraction structure surrounding the subareas have the same or at least very similar reflecting properties under viewing conditions that do not result in the reconstruction of the diffractive image by the diffraction structures. Thus, under these viewing conditions the recognizable information represented by the subareas is not recognizable and cannot be differentiated from the remaining area. However, when the area is viewed under conditions that result in the reconstruction of the diffractive image by the diffraction structures, the recognizable information represented by the subareas is recognizable and can be differentiated from the remaining area. See paragraph [0073], as discussed above. At least one of the subareas is produced during the embossing process with an embossing die.

Claims 9, 39, and 48 recite limitations that are similar to those recited in claim 1. Claims 1 and 39 differ from claims 9 and 48 in that claims 1 and 39 recite that the recognizable information is recognizable when viewed from a condition that is the same as or similar to the condition that reconstructs the diffractive image. Claims 9 and 48 recite that the recognizable information is recognizable when viewed from a condition that is different from the condition that reconstructs the diffractive image.

Schaefer is directed to techniques for transferring decorative holograms into metal surfaces. Moreover, Schaefer discloses the use of an embossed printing roll in embossing metal objects (and more particularly aluminum cans) with decorative holograms. See Schaefer Abstract. Schaefer discloses, in detail, the manufacture of the embossed printing roll and the method of transferring the decorative holographic

image to the metal object. See Schaefer generally at cols.1-9. Schaefer fails to disclose any type of security element, nor does Schaefer disclose any sort of subarea, as is claimed by the present application. Moreover, Schaefer fails to disclose the following claim limitations:

subareas being free of any diffraction structures, the subareas do not take part in the reconstruction of the diffractive image and represent a recognizable information, wherein the subareas and the diffraction structure surrounding the subareas have the same or at least very similar reflecting properties under viewing conditions, under which the diffraction structure does not represent a diffractive image, so that the recognizable information represented by the subareas is recognizable substantially only under the specific viewing conditions,

as recited in claim 1 (and similarly recited in claims 9, 39, and 48). For at least this reason the current rejection is improper and should be withdrawn.

The Office Action points to several portions of Schaefer which allegedly disclose the recited limitation of independent claims 1, 9, 39, and 48. More particularly, the Office Action asserts that the limitations of the independent claims are disclosed in Schaefer at Figs. 1-6 and col. 7, ln. 6 – col.9, ln. 36. However, these portions of Schaefer disclose merely the making of a hardened embossed print roller and the method by which the hardened and embossed print roller is used to emboss aluminum cans with holographic images, for example the word COLA and the galaxies shown in Fig. 5. In no way do these or any other portion of the cited prior art disclose each and every limitation of claim 1 (and similarly claims 9, 39, and 48). Specifically, nowhere in Schaefer is there even a hint of any kind of subarea that (1) represents recognizable information, (2) lacks diffraction structures, and (3) is recognizable only under specific

viewing conditions, as described above and claimed in the present application.

Rather, the Office Action, while addressing the subareas of the current invention, makes unsupported statements that fail to disclose the limitations discussed above. Specifically, the Office Action states that "cans can be painted with recognizable information" and that recognizable information may be disclosed "via [a] decorative coating." Applicants respectfully assert that these blanket statements do not even begin to teach to the claimed invention of the present application. The mere fact that recognizable information can be painted on an aluminum can in no way discloses the subject matter of independent claims 1, 9, 39, and 48.

Because Schaefer fails to disclose each and every limitation of claims 1, 9, 39, and 48, these claims are allowable. Likewise because independent claims 1, 9, 39, and 48 are allowable, dependent claims 2-5, 10-12, 59, 62-63 and 76 are also allowable. Applicants therefore respectfully request that the current rejection be withdrawn.

Claim Rejections under 35 U.S.C. §103

Claims 4-5, 10-12, 59 and 62-63 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schaefer in view of U.S. Patent Publication No. 2002/0191234 to Ishimoto, et al. ("Ishimoto"). Applicants traverse the rejection and submit that claims 4-5, 10-12, 59 and 62-63 recite subject matter that is not disclosed or suggested by the combination of cited prior art.

Ishimoto is generally directed to a hologram laminate and hologram label. Moreover, Ishimoto is directed to a colored hologram label that can be used for

certification, and is viewable at a wider visualization angle than other such holographic labels. See Ishimoto ¶¶ [0001], [0008], and [0036]. Ishimoto fails to cure the defects of Schaefer, as discussed above, and the Office Action fails to provide any other evidence that the elements were known or obvious. For this reason, the Office Action fails to show that all of the claimed elements of the rejected claims were known in the prior art. Applicants therefore assert that claims 4-5, 10-12, 59 and 62-63 are allowable, and respectfully request that the current rejection be withdrawn.


In view of the foregoing, all objections and rejections have been sufficiently addressed. The Applicants submit that the application is now in condition for allowance and request that claims 1-5, 9-12, 39, 48, 59, 62-63 and 76 be allowed and this application passed to issue.

In the event that this paper is not timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account No. 02-2135.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

Respectfully submitted,

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